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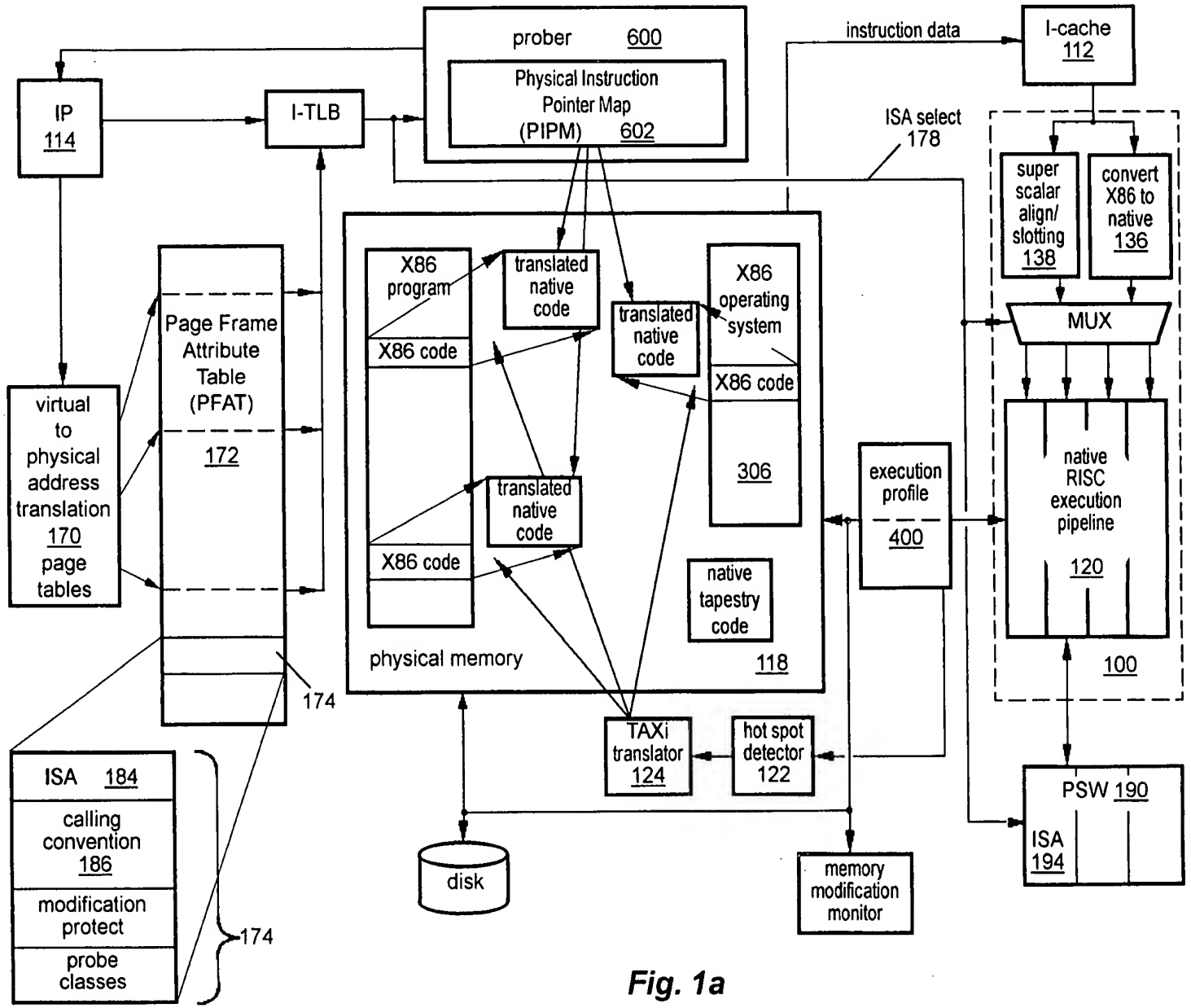

Fig. 1a

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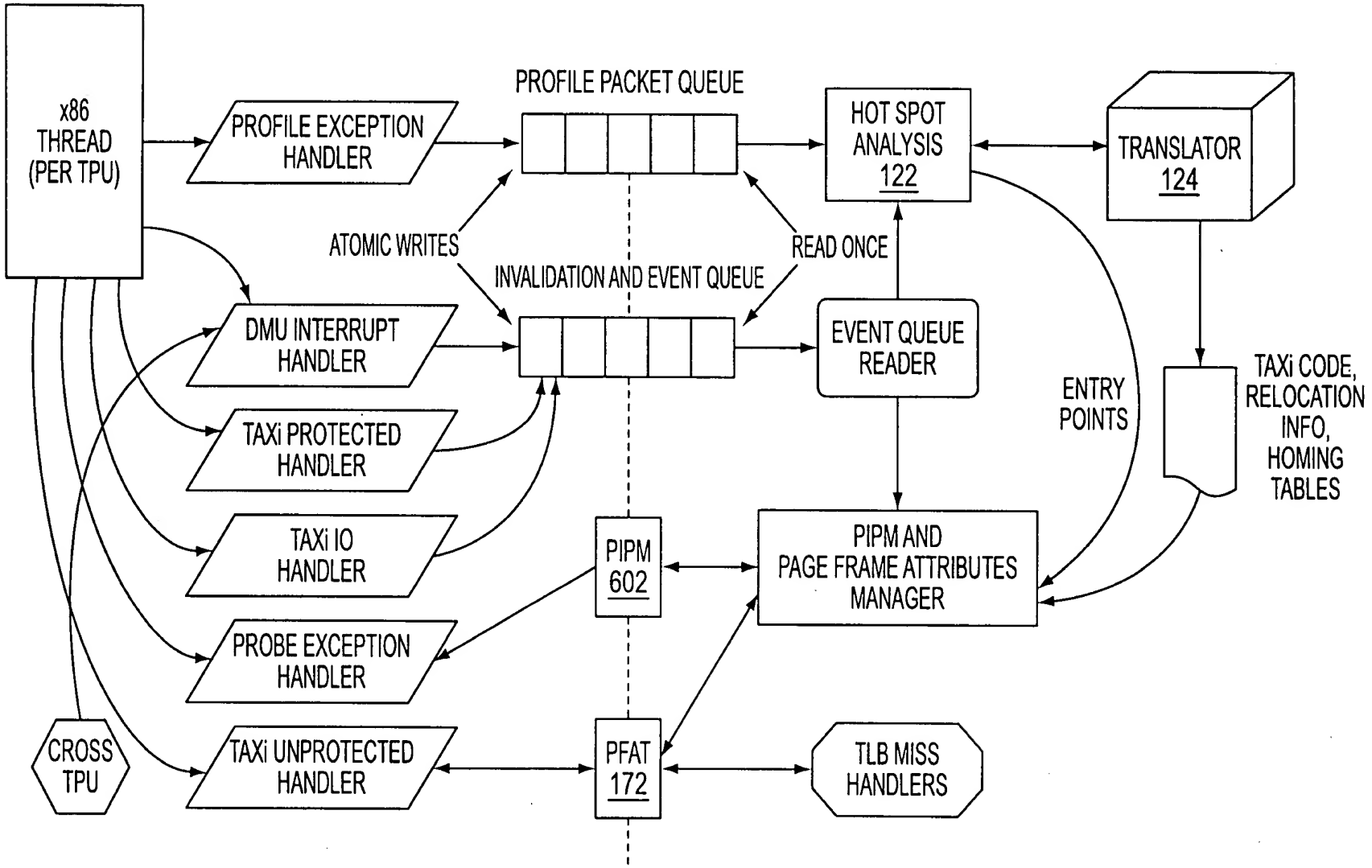

FIG. 1B

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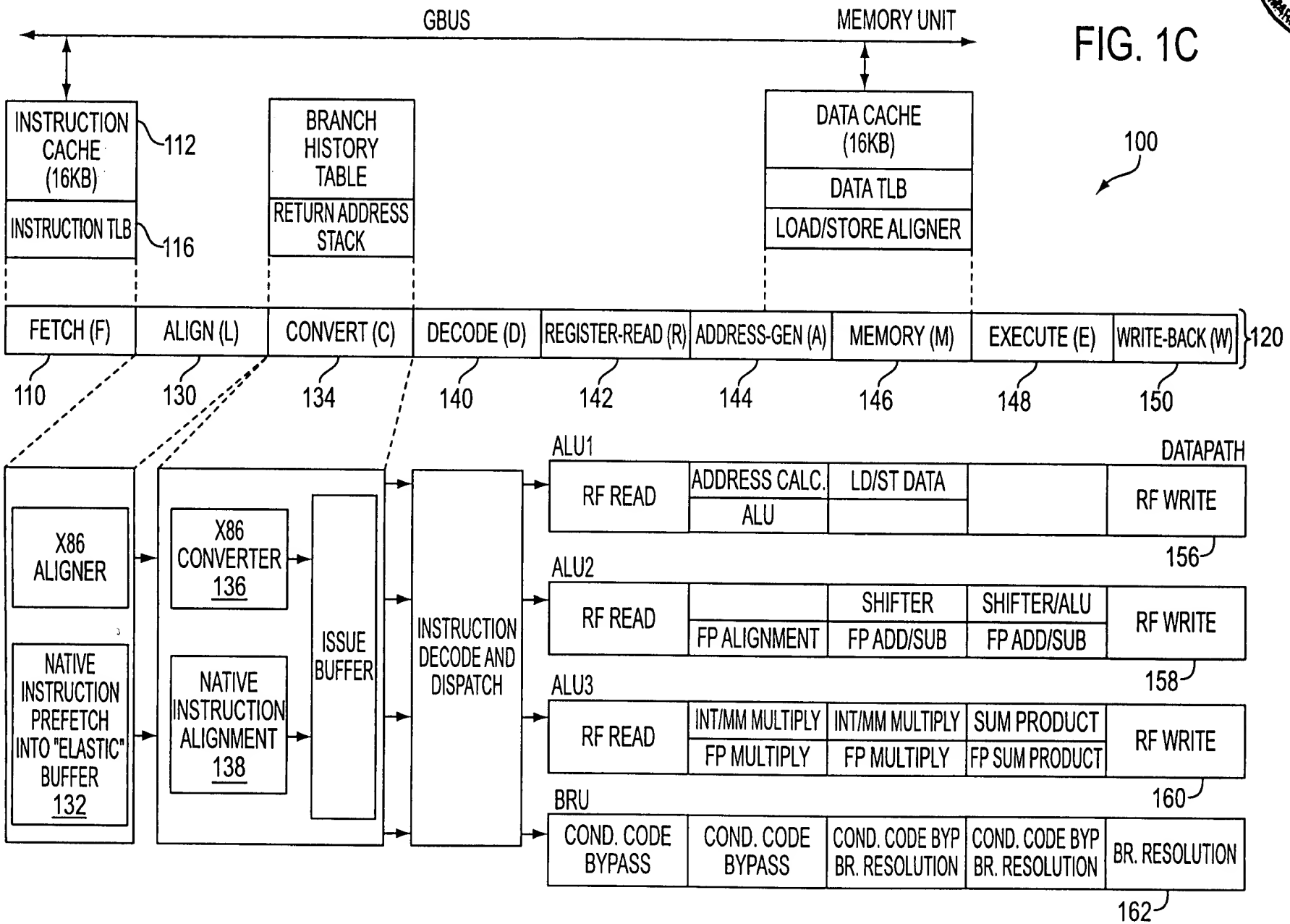
FIG. 1C



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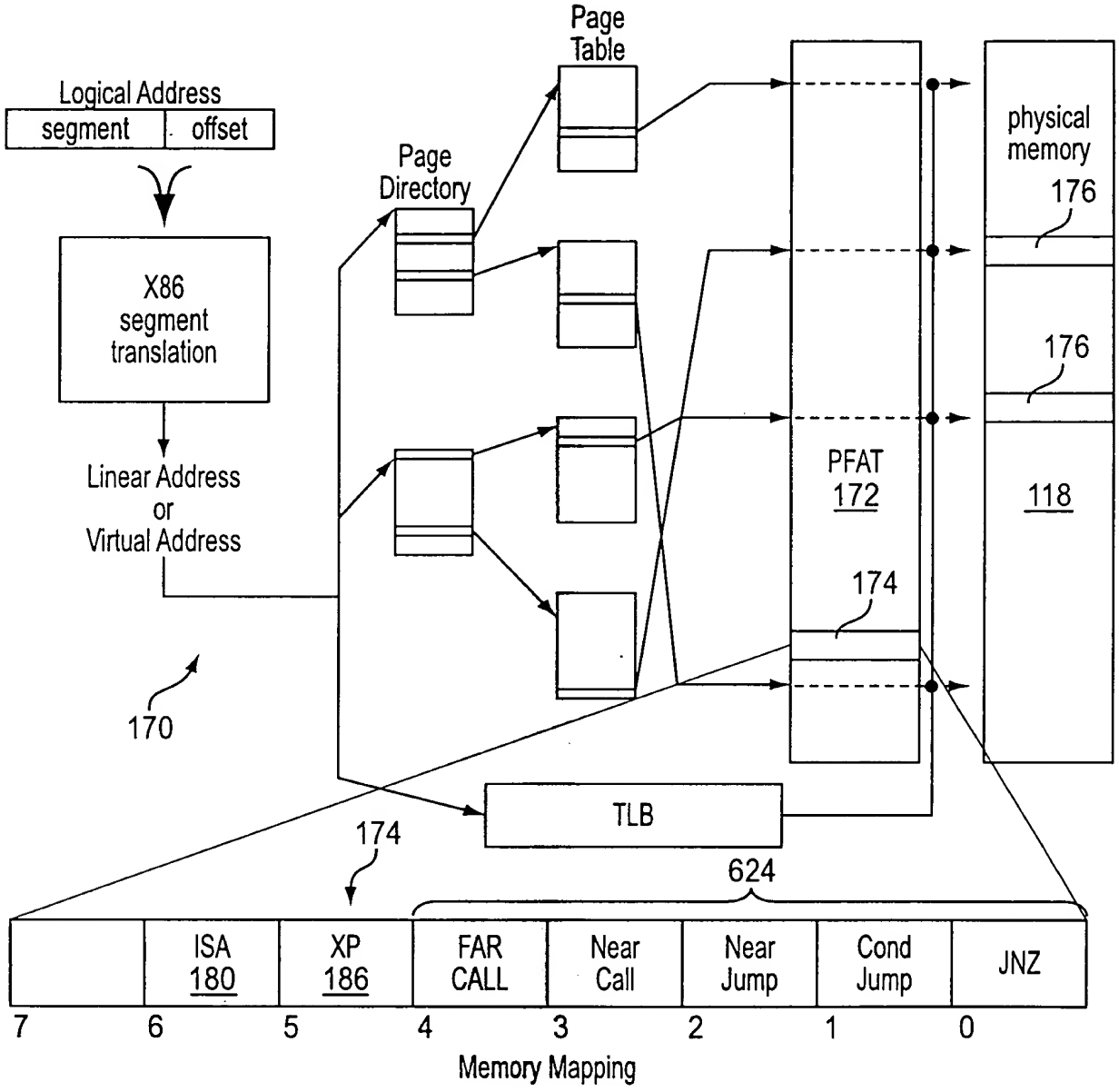

FIG. 1D

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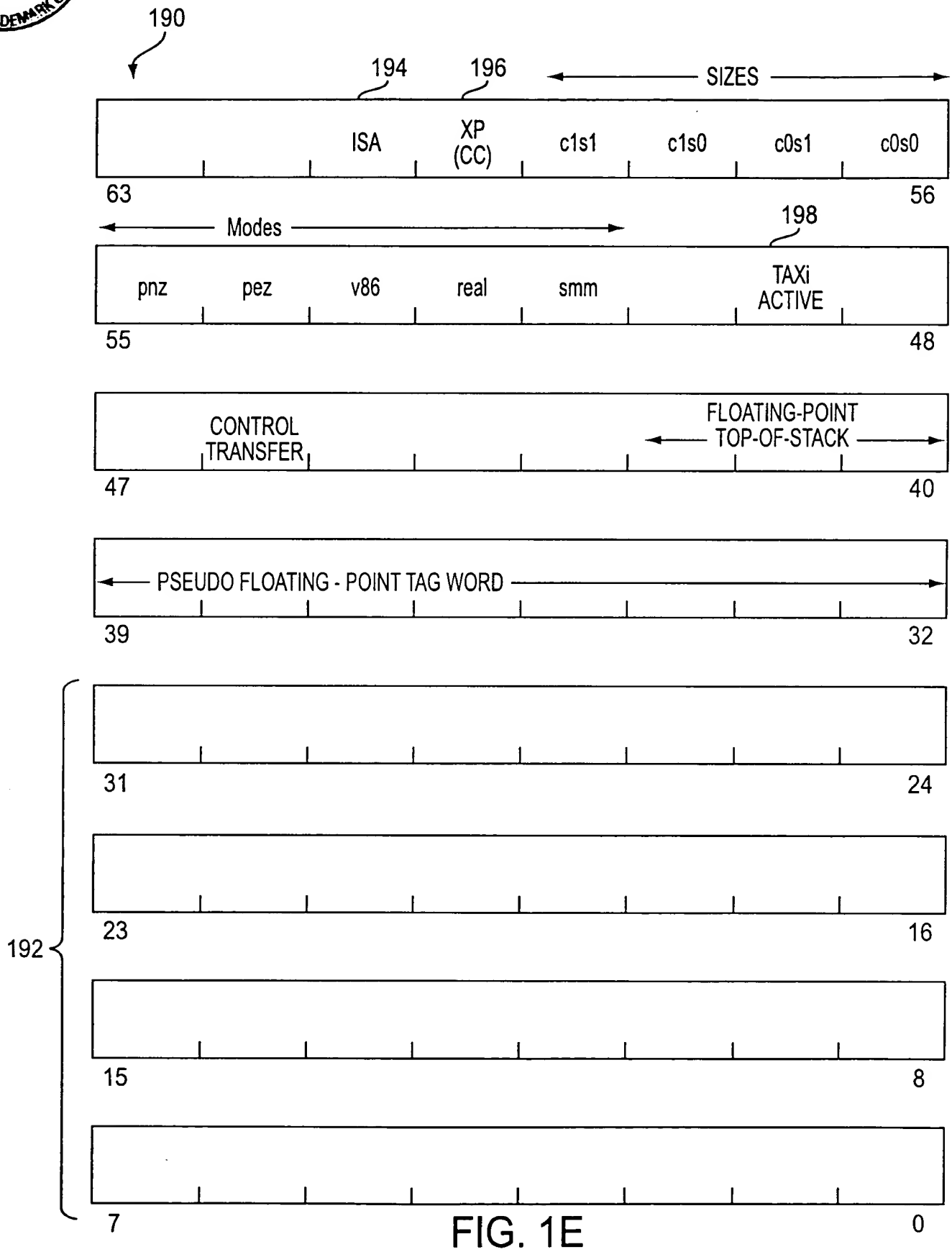

FIG. 1E

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I-TLB PROPERTY BITS	DECODED PROPERTY VALUES		PROTECTED	INTERPRETATION	INSTRUCTIONS SENT TO:	COLLECT PROFILE TRACE-PACKETS?	PROBE FOR TRANSLATED CODE	I/O MEMORY REFERENCE EXCEPTIONS
	ISA 194	CC 200						
00	TAP	TAP	NO	NATIVE CODE OBSERVING NATIVE RISCy CALLING CONVENTIONS	NATIVE DECODER	NO	NO	FAULT IF SEG.tio
01	TAP	x86	NO	NATIVE CODE OBSERVING x86 CALLING CONVENTIONS	NATIVE DECODER	NO	NO	FAULT IF SEG.tio
10	x86	x86	NO	x86 CODE, UNPROTECTED - *TAX!* PROFILE COLLECTION ONLY	x86 HW CONVERTER	IF ENABLED	NO	TRAP IF PROFILING
11	x86	x86	YES	x86 CODE, PROTECTED - *TAX!* CODE MAY BE AVAILABLE	x86 HW CONVERTER	IF ENABLED	BASED ON I-TLB PROBE ATTRIBUTES	TRAP IF PROFILING

180,182, 184,186 — 184,186

FIG. 2A

204

	TRANSITION (SOURCE => DEST) ISA & CC PROPERTY VALUES	HANDLER ACTION
212	00 => 00	NO TRANSITION EXCEPTION
214	00 => 01	VECT_xxx_X86_CC EXCEPTION - HANDLER CONVERTS FROM NATIVE TO x86 CONVENTIONS
216	00 => 1x	VECT_xxx_X86_CC EXCEPTION - HANDLER CONVERTS FROM NATIVE x86 CONVENTIONS, SETS UP EXPECTED EMULATOR AND PROFILING STATE
218	01 => 00	VECT_xxx_TAP_CC EXCEPTION - HANDLER CONVERTS FROM x86 TO NATIVE CONVENTIONS
220	01 => 01	NO TRANSITION EXCEPTION
222	01 => 1x	VECT_X86_ISA EXCEPTION [CONDITIONAL BASED ON PCW.X86_ISA_ENABLE FLAG] - SETS UP EXPECTED EMULATOR AND PROFILING STATE
224	1x => 00	VECT_xxx_TAP_CC EXCEPTION - HANDLER CONVERTS FROM x86 TO NATIVE CONVENTIONS
226	1x => 01	VECT_TAP_ISA EXCEPTION [CONDITIONAL BASED PCW.TAP_ISA_ENABLE FLAG] - NO CONVENTION CONVERSION NECESSARY
228	1x => 10	NO TRANSITION EXCEPTION - [PROFILE COMPLETE POSSIBLE, PROBE POSSIBLE]
230	1x => 11	NO TRANSITION EXCEPTION - [PROFILE COMPLETE POSSIBLE, PROBE NOT POSSIBLE]

FIG. 2B

	NAME	DESCRIPTION	TYPE
242	VECT_call_X86_CC	PUSH ARGS, RETURN ADDRESS, SET UP x86 STATE	FAULT ON TARGET INSTRUCTION
244	VECT_jump_X86_CC	SET UP x86 STATE	FAULT ON TARGET INSTRUCTION
246	VECT_ret_no_fp_X86_CC	RETURN VALUE TO EAX:EDX, SET UP x86 STATE	FAULT ON TARGET INSTRUCTION
248	VECT_ret_fp_X86_CC	RETURN VALUE TO x86 FP STACK, SET UP x86 STATE	FAULT ON TARGET INSTRUCTION
250	VECT_call_TAP_CC	x86 STACK ARGS, RETURN ADDRESS TO REGISTERS	FAULT ON TARGET INSTRUCTION
252	VECT_jump_TAP_CC	x86 STACK ARGS TO REGISTERS	FAULT ON TARGET INSTRUCTION
254	VECT_ret_no_fp_TAP_CC	RETURN VALUE TO RV0	FAULT ON TARGET INSTRUCTION
256	VECT_ret_any_TAP_CC	RETURN TYPE UNKNOWN, SETUP RV0 AND RVDP	FAULT ON TARGET INSTRUCTION

FIG. 2C